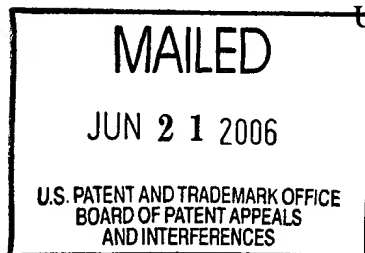The opinion in support of the decision being entered today was <u>not</u> written for publication and is <u>not</u> binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

_____

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

_____

Ex parte DAVID F. CRADDOCK,
DAVID ARLEN ELKO, THOMAS ANTHONY GREGG, GREGORY FRANCIS PFISTER
and
RENATO JOHN RECIO

_____

Appeal No. 2006-1030
Application No. 09/895,233

_____

ON BRIEF

_____

Before THOMAS, BLANKENSHIP and HOMERE, <u>Administrative Patent Judges</u>.

THOMAS, <u>Administrative Patent Judge</u>.

<u>DECISION ON APPEAL</u>

Appellants have appealed to the Board from the examiner's final rejection of claims 1 through 9, 13 through 15 and 17 through 30.

Representative independent claim 1 is reproduced below:

1. A method for end node partitioning for a physical element, comprising the steps of:

selecting a configuration of the physical element, said physical element including a plurality of ports;

probing one of said plurality of ports that is included within said physical element, wherein the port is probed with a subnet management packet by a subnet manager;

in response to determining that said physical element is a particular type of physical element, partitioning said physical element to provide a plurality of virtual representations of said physical element, each one of said plurality of virtual representations having a unique access control level; and

partitioning said physical element by assigning a different local identifier to each one of said plurality of ports that is included within said physical element resulting in a configuration change of the physical element.

The following references are relied on by the examiner:

Shah et al. (Shah)	6,694,361	Feb. 17, 2004
		Filed June 30, 2000
Bakke et al. (Bakke)	6,704,812	Mar. 9, 2004
		Filed Nov. 30, 2000

Claims 1, 5, 8, 9, 13, 17 and 20 through 22 stand rejected under 35 U.S.C. § 102(e) as

being anticipated by Shah. The remaining claims on appeal stand rejected under 35 U.S.C.

§ 103. As evidence of obviousness as to claims 2 through 4, 6, 7, 14, 15, 18, 19 and 23 through

30, the examiner relies upon Shah in view of Bakke.

Rather than repeat the positions of the appellants and the examiner, reference is made to

the Brief and Reply Brief for appellants' positions, and to the Answer for the examiner's

positions.

OPINION

Essentially for the reasons set forth by the examiner in the Answer, as expanded upon here, we sustain the rejection of the noted claims under 35 U.S.C. § 102 as well as the remaining claims on appeal under 35 U.S.C. § 103.

According to appellants' arguments with respect to the first-stated rejection of the claims on appeal under 35 U.S.C. § 102 at pages 7 through 12 of the principal Brief on appeal, appellants present no arguments as to any dependent claim represented there and consider independent claim 1 as representative of the other independent claims 13 and 22. Correspondingly, according to the rejection of the remaining claims on appeal under 35 U.S.C. § 103, pages 12 through 15 of the principal Brief on appeal present arguments as to the combinability of Shah and Bakke and do not present any arguments as to any feature of any claims listed within this rejection.

Turning first to the rejection of representative independent claim 1 under 35 U.S.C. § 102, appellants' arguments focus upon this language in the determining clause "partitioning said physical element to provide a plurality of virtual representations of said physical element, each one of said plurality of virtual representations having a unique access control level." With respect to the examiner's initial characterization of this clause being met by Shah's teachings at the bottom of column 8 relating to assigning multiple paths to a port, appellants assert at the top of page 13 of the Brief that merely assigning an LID to each port does not teach partitioning a

physical element to provide virtual representations of it where each one of the virtual

representations has a unique access control level. As appellants' remarks continue, we

understand that the art is well developed with respect to the use of the term "virtual" in the data

processing arts. Appellants also argue that a different path to a port is not a virtual representation

of a physical element. Appellants appear to summarize their arguments at page 14 by asserting

that Shah does not teach providing virtual representations of a physical element.

In response, the examiner has refined his position with the following statements at page 8

of the Answer:

> The Examiner has applied the broadest reasonable interpretation to
> the claim language.
> The Examiner maintains that assigning an LID to a port as taught
> in Shah, column 8, lines 52-67, taught partitioning a physical element to
> provide virtual representations of the physical element as defined by
> Applicant's disclosure. "Multiple identification values (LIDs)" were
> assigned to ports. (Shah, column 2, lines 50-51) Each port was uniquely
> identified and addressed by use of a local ID (LID). (Shah, column 8,
> lines 42-46) A fabric-attached port was assigned multiple LIDs. (Shah,
> column 8, lines 52-55) Different service levels were supported. (Shah,
> column 8, lines 64-67). Applicant failed to define "access control levels"
> or "unique access control levels" within the specification. One of ordinary
> skill in the art would interpret "access control level" to be a service level.

We agree with this characterization and analysis of Shah since it is considered to be

consistent with our understanding and study of it. The title of Shah relates to assigning multiple

LIDs to ports in a cluster, all of which are managed by a subnet manager, which is depicted in

figures 6 through 8 of this reference. This manager, itself a host computer, performs a

topological discovery of the cluster and detects individual ports within its fabric. Initially, it

assigns a single base LID but additional LIDs are reserved for each port while a single base LID

is assigned to each port according to the path analysis. Even column 1, lines 11 and 12 of Shah,

indicate that each physical link may support a number of logical or otherwise virtual point-to-

point channels. Communication is stated in the same paragraph to be through packets to the

extent cited in each claim on appeal. The artisan would well appreciate that the lengthy list of

various types of computer networks in the middle of column 2 would have communicated within

each respective network by the use of packet switching concepts. It is stated at column 8,

lines 52 through 55 that "[a] fabric-attached port can be assigned multiple LIDs as per the

InfiniBand specification. Each LID for a port specifies a different path to that port from some

other port on the fabric."

Because this disclosure in Shah is consistent with and based upon the same background

prior art approaches in InfiniBand, even as recognized by appellants' arguments that Shah is

disclosed to operate in a virtual environment anyway, the teaching of assigning plural LIDs to

any physical port clearly conveys the concept of each physical element being provided with a

plurality of virtual representations or logical LIDs of that physical element. This is the essence

of the examiner's position. Moreover, based upon the background discussion of Shah, we

interpret Shah's teachings as clearly understanding from an artisan's perspective the noted subnet

manager communication within the network by the use of packets. Therefore, the examiner's

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inherency arguments in the paragraph bridging pages 8 and 9 of the Answer clearly answer the appellants' remarks at page 12 of the Brief since the reference clearly indicates to the artisan that it utilizes packet switching for its internal communications.

The portion of the Answer we reproduced earlier in this opinion also addresses appellants' argument in the paragraph bridging pages 11 and 12 of the Brief that Shah does not teach "each one of said plurality of virtual representations having a unique access control level." To the extent broadly recited in the claims on appeal, we agree with the examiner's view that different service levels are taught and supported within the teachings of the reference. We also agree with the examiner's observation that appellants have not defined the meaning of "access control levels" or "unique access control levels" within the specification as filed. Appellants' discussion of the prior art at Specification, page 2, lines 24 and 25, indicates that the "end nodes are grouped into partitions and access is controlled through the P_Key." It appears that the examiner is correct that the Specification of appellants' contribution in the art has no definable distinction of the term "unique access control level." Again, it is worth emphasizing that Shah operates within the same InfiniBand architecture as disclosed. According to Shah's contribution at the top of column 9, the architecture also permits programming service levels to virtual lane mapping tables within the switches. We therefore sustain the rejection of all claims rejected under 35 U.S.C. § 102.

We reach a similar conclusion with respect to the identified claims rejected under

35 U.S.C. § 103 in light of Shah and Bakke. Beginning at page 5 of the Answer in the

examiner's statement of the rejection, the examiner has set forth a separate motivation and

combinability analysis within 35 U.S.C. § 103 for each of plural separate subgroupings of the

respective dependent claims rejected there. Appellants' remarks beginning at page 12 of the

Reply Brief do not address this approach. Moreover, when all is said and done, appellants argue

the patentability of independent claim 1 at pages 14 and 15 of the principal Brief on appeal,

which is not at issue with respect to the combinability of Shah and Bakke. Bakke alone has not

been used to reject independent claim 1 on appeal within 35 U.S.C. § 102.

With respect to the examiner's reasoning of combinability and the examiner's detailed

correlated teachings among both references, appellants' arguments appear to approach the

combinability issue from combining structures where the issue is really the combinability of the

respective teachings. Both references relate to host computer systems in a computer network and

their respective management of so-called peripheral devices or elements. In view of the

foregoing, we are not persuaded by appellants' brute force argument at the middle of page 14 of

the Brief that the examiner has failed to demonstrate <u>any</u> motivation or incentive in the prior art

to combine and modify the respective references. Even at page 5 of the Answer, the examiner

correlates the static assignment and dynamic assignment of respective physical elements in

Bakke to the correlated teachings in Shah, which relate directly to some features claimed.
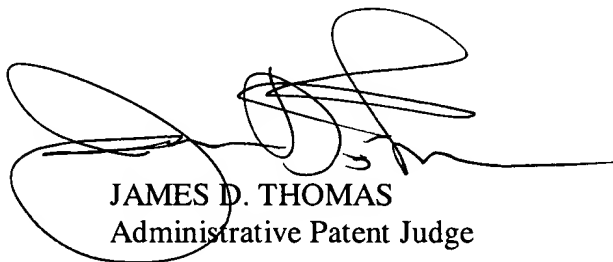
Lastly, appellants' discussion with respect to virtual elements and service levels at

pages 2 and 3 of the Reply Brief are unpersuasive of patentability.

In view of the foregoing, the decision of the examiner rejecting various claims on appeal

under 35 U.S.C. § 102 and 35 U.S.C. § 103 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be

extended under 37 CFR § 1.136(a)(1)(iv).

<u>AFFIRMED</u>

JAMES D. THOMAS   )
Administrative Patent Judge   )
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) BOARD OF PATENT
HOWARD B. BLANKENSHIP   )   APPEALS
Administrative Patent Judge   )   AND
) INTERFERENCES
)
)
)
JEAN R. HOMERE   )
Administrative Patent Judge   )

JDT:psb

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Application No. 09/895,233

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